

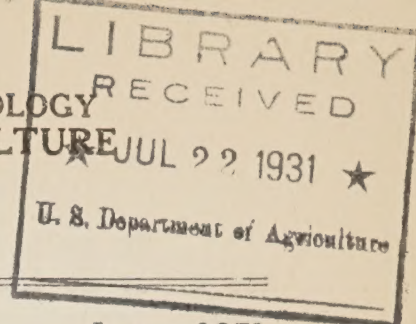
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MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY  
UNITED STATES DEPARTMENT OF AGRICULTURE



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DR. HOWARD RETIRES

On June 30, after 53 years of service in the Bureau of Entomology, Dr. L. O. Howard retired from active duty. It is needless at this time to record Dr. Howard's outstanding services, which have long been known to all the members of the Bureau. A statement referring briefly to the more important features was published in the Official Record for July 4, 1931. His active interest in entomological work will not cease with his retirement, and he will continue to be associated with the Department as a collaborator.

For half a century Dr. Howard has taken a very prominent part in entomological affairs throughout the world. Dr. C. L. Marlatt says of him: "For 33 years Dr. Howard was Chief of the Bureau and during this period was the inspiring leader of its constantly increasing personnel. The development of the Bureau to its present status is largely his monument." In addition to administrative duties Dr. Howard has been actively engaged, practically throughout his entire career, in the preparation and publication of papers on entomological subjects, and until 1907 he continued to work and publish on the classification of chalcid flies.

Dr. Howard plans to sail from New York July 11 on the S. S. Virginia for San Francisco by way of the Panama Canal. From San Francisco he will go to Honolulu, where he will visit for some time and take part in the Pan Pacific Congress. Following the stay in the Hawaiian Islands he will go to Paris, France, where he will make his home with his daughter Janet and work on a number of publications on entomology. En route to France he will stop at Japan, China, and Palestine. At the latter place he will leave a colony of one of the parasites of the Mediterranean fruit fly, which is being sent there from Hawaii as an aid in the control of this pest.

On June 12 Dr. Howard received word that he had been awarded the 1931 Capper gold medal and \$5,000 for distinguished service to American agriculture. The award was made because of his outstanding services in perfecting insect control measures, principally in the biological method of control, and also for his work on the carriage of disease by insects.



To celebrate his 74th birthday, on June 11 a dinner was given in his honor at the Cosmos Club and attended by a great number of his Washington associates and friends. Dr. Charles G. Abbot, Secretary of the Smithsonian Institution, was toastmaster, and laudatory speeches were made by Dr. A. F. Woods, Director of Scientific Work of the Department, and by five other of Doctor Howard's friends.

During the last few weeks before his retirement many of his colleagues called on him to show their appreciation of his work and to wish him a happy and successful voyage. On June 26 the Washington personnel of the Bureau, through their spokesman, Miss Mabel Colcord, presented him with a camera and a writing portfolio as a token of esteem and appreciation.

The members of the Cosmos Club were given an opportunity to bid farewell to Dr. Howard at an informal reception held in his honor on the evening of June 29.

On the eve of his departure Dr. Howard expressed his appreciation to the Bureau personnel in the following letter:

"To the People in the Bureau of Entomology:

"Tomorrow I am leaving the Bureau. I cannot go without saying more than I shall have the opportunity to say tomorrow when I shake your hands. I wish to thank you for so many things in the way of kindness, courtesy, and help, that I should be obliged, if I were to go into particulars, to write a letter so long that you could not spare the time to read it.

"My fifty-two and a half years with the Bureau have been very happy ones, and to state how much of my happiness has been due to the way the people in the Bureau have greeted me and have helped me would seem to you almost as an exaggeration. You are all fine people, and I shall often think of you in the years that may be remaining to me. Although I am leaving the country very soon, I hope some day to come back and to shake your hands again.

"Thank you all from the bottom of my heart."



R. W. HARNED TO HEAD DIVISION OF COTTON INSECT

CTS

On June 20 Prof. R. W. Harned was appointed Principal Entomologist and placed in charge of the Division of Cotton Insects. The appointment of Professor Harned fills the vacancy in the Cotton Insect Division caused by the separation of B. R. Coad from the service last February.

During the past few months F. C. Bishopp, in charge of the Division of Insects Affecting Man and Animals, has been acting as leader of the cotton insect work and has carried on this important detail very satisfactorily. The appointment of Professor Harned will relieve Mr. Bishopp of this double duty and will enable him to devote all his attention to his own important and rapidly expanding field.

In order to become thoroughly familiar with the work which is now being done on cotton insects, Professor Harned will spend considerable time in the field with temporary headquarters at Tallulah, La. Later on his headquarters will be transferred to Washington, D. C. While Professor Harned is in the field, matters relating to cotton insects and requiring the attention of the Washington office should be addressed to Mr. Bishopp, who will continue to aid in handling the work that has to be done in this office.

Professor Harned is well known to members of the Bureau, in fact to entomologists in general. The Bureau is pleased that he has been willing to accept this important assignment.

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COTTON INSECTS

R. W. Harned, in Charge.

S. A. Rohwer, Assistant Chief of the Bureau of Entomology, spent June 20 at Tallulah, La.

R. W. Harned, in charge of the Division of Cotton Insects, spent June 20 to 24 at Tallulah.

F. C. Bishopp spent June 24 at Tallulah, after which he, in company of Mr. Harned, visited Auburn, Ala.; Gainesville, Orlando, and Jacksonville, Fla.; Florence, Charleston, and Clemson College, S. C.; and Raleigh, N. C., for the purpose of consulting with Bureau and State entomological workers. Mr. Bishopp returned to Washington July 1.

C. B. Hadden, Director of the Cotton Experiment Station, St. Joseph, La., was a visitor at the Tallulah field laboratory June 26.

Syrus Conn left Tallulah June 19 for Stillwater, Okla., to assist in cooperative field-plat tests for weevil control.



The following temporary Field Assistants were appointed and reported for duty at Tallulah, La., during June: Phil H. Berry, Keith H. Smith, Solomon F. Davis, Milton C. Ewing, William H. Lindley, John T. Roy, jr., Kenson R. Vance, Geo. M. Webb, Cliff C. Adams, John G. Dutton, Donald H. Alexander, Stanley O. Coad, Edwin O. Edgerton, Louis T. Kennedy, Jack S. Rushing, and Dean H. Allen.

L. F. Greer and B. A. Stevenson reported for duty at Port Lavaca, Tex., on June 4, on plat-test work for control of the cotton flea hopper.

Eric Pearson, of Cambridge, England, visited the Presidio, Tex., field laboratory on June 26 and was shown all the experimental pink bollworm projects under way there. He visited the El Paso laboratory on June 29 and was shown the freight-car fumigation sheds and methods of fumigation. He was particularly interested in the fumigation experiments at the technological laboratory of the Plant Quarantine and Control Administration.

On June 19 the headquarters of the Big Bend Plant Quarantine Division was moved from Marfa to Alpine, Tex. As Alpine is more centrally located as a base of operations for the trap-plot experiments for control of the pink bollworm, Hugh S. Cavitt and Homer B. Tittle, temporary employees of the Bureau of Entomology, also moved their headquarters to Alpine where they will be located at the Plant Quarantine laboratory.

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#### TAXONOMY

Harold Morrison, in Charge.

Frank Johnson, of New York City, spent June 9 consulting with Dr. William Schaus in the section of Lepidoptera.

Richard P. Dow, a graduate student in Harvard University, Cambridge, Mass., was in the National Museum June 9 to 12 and 15 to 17, examining the collection of fossorial wasps (family Sphecidae) of North America and the West Indies. He was interested in securing records of the preying habits of these wasps.

Dr. J. W. Folsom, of the Bureau's cotton-insect laboratory, Tallulah, La., called at the National Museum early in June to see the collection of Collembola and to consult with several of the specialists there.

Dr. M. A. Stewart, of Rice Institute, Houston, Tex., spent a few days in June working on the National collection of North American fleas.



Leona E. Anderson, of Ridgway, Pa., called recently to obtain identification of a collection of ectoparasites from Pennsylvania.

On June 19 Dr. Norma LeVeque, of the Department of Biology, University of Colorado, at Boulder, Colo., came to Washington while on her way to Europe and discussed the insect-infesting mites. She has been working particularly on the gamasid mites which infest carpenter bees (family Xylocopidae) and examined the collection of this family in the National Museum.

Herman Schroeder, of the Bureau's Division of Insects Affecting Man and Animals, located at the field laboratory at Charleston, S. C., was in the taxonomic unit recently to examine the collection of ticks and their hymenopterous parasites (family Chalcididae).

H. K. Plank, of the technical staff of the Tropical Plant Research Foundation, Central Baragua, Baragua, Camaguey Province, Cuba, left for identification a number of specimens of insects which had been collected in Cuba in connection with economic investigations on sugarcane insects in that island and consulted the Bureau's specialists.

Homer C. Will, of the Carnegie Institute, Pittsburgh, Pa., spent June 23 to 25 in the section of Hymenoptera examining the collection of North American Tenthredininae. He is especially interested in compiling a list of the sawflies of this subfamily occurring in Pennsylvania.

J. H. Roberts, of the University of Maryland, called recently to discuss with the Bureau's specialists a survey of the ticks of certain parts of Maryland.

Prof. A. L. Melander, of the College of the City of New York and a well-known specialist on the Diptera, has been spending the past few days in the Division of Insects examining the collection of Diptera.

David G. Hall, of the Bureau of Entomology, stationed at Charleston, S. C., spent two weeks examining type material in Diptera.

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#### DECIDUOUS-FRUIT INSECTS

Dr. F. R. Petherbridge, Entomologist of Cambridge, England, visited the Wenatchee, Wash., sublaboratory on May 9 and 11.

E. V. Shear, Plant Pathologist of the Bureau of Plant Industry laboratory at Hood River, Oreg., visited the Wenatchee, Wash., sublaboratory on June 9 to 12, conferring with M. A. Yothers upon their common problem, the relation of the woolly aphis to perennial canker of the apple.



Paul B. Allen, jr., who served in 1930 as Field Assistant at the Wenatchee, Wash., sublaboratory, was reappointed to that position and resumed his duties on June 5, succeeding Harold A. Bonnet, whose term expired June 17.

Upon a recent trip throughout eastern Washington and northern Idaho, where they made a survey of the woolly aphis and perennial canker situation, M. A. Yothers of the Wenatchee, Wash., sublaboratory and E. L. Reeves, of the Bureau of Plant Industry, visited the laboratories of the Bureau of Entomology at Walla Walla, Wash., and at Coeur d'Alene, Idaho.

The Belleville, Ontario, Canadian entomological laboratory has made several iced express shipments of the woolly aphid parasite Aphelinus mali Hald. to the Wenatchee, Wash., sublaboratory. This method of carrying the parasites on the 5-day journey across the continent has been very successful.

Dr. J. J. McManus, in charge of the Savannah, Ga., station of the Food and Drug Administration, and W. H. Simms, Inspector from that station, visited the peach insect laboratory at Fort Valley, Ga., on June 3, where a conference was held in regard to the presence of excessive arsenical and fluorine residues on peaches.

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#### CEREAL AND FORAGE INSECT INVESTIGATIONS

W. H. Larrimer, in Charge

Eric Pearson, a native of England, who has been studying entomology in the United States, visited the New Orleans, La., field laboratory on June 12.

Dr. I. M. Hawley, Senior Entomologist, formerly located at the Salt Lake City, Utah, field laboratory, has been transferred to the Japanese beetle investigations with headquarters at Moorestown, N. J.

W. R. Walton returned to Washington, D. C., on June 11 from a tour of inspection of field work and laboratories at New Orleans and Houma, La., Beaumont and San Antonio, Tex., and Tempe, Ariz.

Prof. W. E. Hoffman, head of the department of biology, Lingnan University, Canton, China, visited the field laboratory at Arlington Farm, Va., on June 6.

Dr. W. V. Balduf, of the department of entomology, University of Illinois, accepted a three-months appointment as Field Assistant and will assist in studies of the biology of Empoasca spp. in the insectary at the Arlington Experiment Farm, Va.

Dr. W. J. Phillips, in charge of the Charlottesville, Va., field laboratory, spent the period June 14 to 25 in making a survey of the joint-worm in Tennessee and North Carolina, and at various points in Virginia.



## JAPANESE BEETLE AND ASIATIC BEETLE RESEARCH

C. H. Hadley, in Charge.

Early in June C. H. Hadley and J. L. King made a trip through New England for the purpose of making general observations. One day was spent conferring with Dr. W. E. Britton, State Entomologist of Connecticut, with reference to the Japanese beetle situation in Connecticut, and possibilities for the distribution of parasites. Short visits were made at the European corn borer laboratory at Arlington, Mass., and the gipsy moth laboratory at Melrose Highlands, Mass., to discuss various questions regarding handling of imported parasites.

C. R. Jones reported on June 16 as temporary Field Assistant, and is now stationed at Bridgeport, Conn., conducting general life-history investigations of the Japanese beetle.

Dr. I. M. Hawley, Senior Entomologist, has been transferred from Salt Lake City, Cereal & Forage Insects Division, to the Moorestown, N. J., laboratory. Dr. Hawley took up his work at this laboratory on June 18. He will be in charge of the section of biological investigations.

On June 17 a conference was held with the committee of Eastern Nurseryman's Association at this laboratory to discuss nursery problems dealing with the Japanese beetle. The following men were present: J. Clark and H. Sim, representing H. A. Dreer's Nursery; R. de Wilde, representing Jackson-Perkins Nursery; Lester Lovett, representing Lovett's Nursery; E. H. Costich, representing Hicks Nurseries; R. T. Brown, representing Cottage Gardens Nurseries; J. H. Humphreys and W. W. Harper, representing Andorra Nursery; F. Hendrickx, representing Bobbink & Atkins Nursery; Carl Flemer, representing F & F Nurseries; Mr. Van den Hoek, from the Koster Co.; Mr. Harris, of the Old English Boxwood Co.; L. W. Needham, from Reading, Pa.; Dr. T. J. Headlee, Entomologist of the Agricultural Experiment Station at New Brunswick, N. J.; and C. H. Hadley, J. L. King, and W. E. Fleming, of the laboratory staff.

H. K. Plank, Entomologist of the Tropical Plant Research Foundation, Cuba, visited the Moorestown laboratory on June 20. Mr. Plank was chiefly interested in methods of parasite control.

On June 22 and 23 C. H. Hadley and I. M. Hawley visited C. R. Jones at Bridgeport, Conn., and H. C. Hallock at the Westbury, Long Island, sub-laboratory to discuss the general program for the season's work.

S. A. Rohwer, Assistant Chief of the Bureau, visited the Moorestown laboratory on June 24, to confer with C. H. Hadley, J. L. King, T. R. Gardner, and H. W. Allen relative to the continuance of parasite work in Australia.

On June 26 Dr. D. Stewart MacLagan, from the Department of Agriculture, Scotland, visited the Moorestown laboratory. Dr. MacLagan is chiefly interested in work in biological control.



## BEE CULTURE

Jas. I. Hambleton, in Charge.

Dr. C. L. Marlatt, Chief of the Bureau of Entomology, visited the recently established Pacific Coast Bee-Culture Field Laboratory at Davis, Calif., on June 11.

Alice Mayo has been appointed Field Assistant at the Somerset, Md., field laboratory to assist in research work on bee diseases.

W. Haydak has been reappointed Field Assistant to continue work on the nutritional requirements of the honeybee at the Somerset laboratory.

C. L. Farrar, Assistant Professor of Entomology and Beekeeping at the Massachusetts State College, has been appointed Field Assistant at the Somerset laboratory to devise a method for obtaining accurate information on the rate of flight of bees.

The Maryland State Beekeepers' Association held its annual meeting at the Bee-Culture Laboratory at Somerset on June 20. Short talks were given by various members of the staff.

George E. Marvin, of the Somerset laboratory, in company with R. S. Washburn, of the Bureau of Agricultural Economics, left Washington June 20 to visit the cooperators who are assisting in the studies on apiary management and cost of production in the White Clover Region. They will visit cooperators in Iowa, Minnesota, Michigan, Ohio, and New York.

Wm. C. Northrup has been reappointed Field Assistant at the Intermountain States Bee-Culture Field Laboratory, Laramie, Wyo., to assist in bacteriological work.

J. E. Eckert, of the Intermountain States Bee-Culture Field Laboratory, returned to his official duties on June 3 after a year's leave of absence at Ohio State University, Columbus, Ohio, where he received the degree of doctor of philosophy.

Dr. A. P. Sturtevant, of the Intermountain States Bee-Culture Field Laboratory, attended a meeting of the Apiary Committee of the Western Plant Quarantine Board, at Cheyenne, Wyo., on June 19.

The Honorable R. G. Simmons, Member of Congress from Nebraska, with his family visited the Intermountain States Bee-Culture Field Laboratory on June 19.

Dr. Everett Oertel, of the Southern States Bee-Culture Field Laboratory, Baton Rouge, La., spent the latter part of the month at the Somerset, Md., laboratory, working over the phenological records relative to the blooming dates of various nectar-secreting plants.



## STORED-PRODUCT INSECTS

E. A. Back, in Charge

During the period May 12 to 26 Dr. R. T. Cotton visited Oklahoma City, Okla., and Mineral Wells and Amarillo, Tex., where he gave talks at the request of local grain dealers' associations on the fumigation of grain with the ethylene oxide-carbon dioxide mixture. On his return he stopped at St. Joseph and St. Louis, Mo., to consult with establishments dealing in nut meats and confections.

On May 25 Dr. E. A. Back visited Suffolk, Va., for the purpose of consulting with firms storing peanuts, with a view of starting cooperative investigational work on the control of insects affecting this commodity.

Dr. Back gave an illustrated talk on insects affecting confections and nut meats on June 4 before the convention of the National Confectioners' Association held in Chicago.

Wallace Colman, of the household insect investigations, Sligo, Md., spent June 14 to 15, in Boston, Mass., conferring with William G. Hamilton, whose appointment as temporary Field Assistant became effective June 15.

A. O. Larson, Corvallis, Oreg., C. K. Fisher, Modesto, Calif., and P. Simmons, D. F. Barnes, and A. W. Morrill, jr., of Fresno, Calif., attended the recent meetings of the American Association for the Advancement of Science at Pasadena, Calif.

Athol W. Greene, a graduate of the Virginia Polytechnic Institute, Blacksburg, Va., was appointed temporary Field Assistant, effective June 15, and assigned to the Tobacco Insect Investigations, at Richmond, Va.

A. W. Morrill, jr., was transferred June 30 from the dried fruit insect investigations at Fresno, Calif., to the stored-tobacco insect investigations at Richmond, Va.

On June 26 to 27, Dr. Back visited a number of the leading tobacco establishments in Hartford, Conn., for the purpose of observing methods employed for control of the tobacco beetle.

On June 29 inspections were made of docks in the New York area which store flour intended for export. It is said that more than 80 per cent of the flour exported from the United States passes over these docks.

The laboratory for the investigation of insects affecting stored tobacco was moved on June 30 from Danville, Va., to 200 Bland Street, Richmond, Va.

## FOREST INSECTS

F. C. Craighead, in Charge.

Dr. T. E. Snyder left Washington June 8 to obtain a collection of termites from Dr. Alfred Emerson, of the University of Chicago. Dr. Emerson obtained a large collection of termites on his recent visit to European museums and exchanged many specimens for the Bureau of Entomology while on this trip. The present number of named termite species in the National Collection of Isoptera is 795, including 565 types of one kind or another.

J. C. Evenden of the Coeur d'Alene, Idaho, field laboratory, returned on May 23 from a two weeks' field trip on the bark-beetle control projects of Region Four. Control projects directed against outbreaks of the mountain pine beetle in lodgepole pine on the Targhee, Teton, Wyoming, Caribou, and Cache National Forests, and in the Yellowstone National Park are all well organized and for the most part will complete the operation by June 10. A marked reduction in the infestation followed last season's operation, and it is hoped that in many of the control areas this year's work will result in a clean-up of the infestation.

Mr. Evenden spent the first 18 days of June in the field attending a conference at Ogden, Utah, with Dr. Craighead and J. M. Miller, and in an inspection of bark-beetle control operations and station experimental projects. Dr. Craighead accompanied Mr. Evenden on a visit to the bark-beetle control projects directed against the spruce budworm in the Cody Canyon, Shoshone National Forest.

L. G. Baumhofer, who has been on temporary detail to the Coeur d'Alene field laboratory for the purpose of conducting a series of examinations of treated trees, in order to determine the actual results secured from the burning-standing method of control used against the mountain pine beetle in lodgepole pine, was relieved by T. T. Terrell early in June. Mr. Baumhofer returned to Halsey, Nebr., where his services in connection with the studies of the tip moth were required.

D. DeLeon, who for the past three years has been engaged in the study of insects found in association with the mountain pine beetle in both lodgepole pine and white pine, resigned from the Bureau on May 14. Mr. DeLeon sailed on May 29 for Europe, where he plans to spend a year and a half in obtaining his doctorate degree by further study of insect parasitology.

On June 8 G. R. Struble started field work at the California Experiment Station base on the Stanislaus National Forest, Calif. He will be assisted by Albert Wagner. Studies will be centered for the season on the fir engraver beetle, with the object of developing methods of control. The University of California will cooperate on the project through the assignment of Dr. Aaron Gordon, who will carry on experiments to determine the possibility of preventing attacks of the fir engraver by tree-injection methods.



P. C. Johnson has been appointed Field Assistant and reported to Dr. K. A. Salman, in charge of the regional survey crew on the Modoc National Forest, Calif., June 8.

J. M. Miller and R. N. Jeffrey made a trip to the Stanislaus National Forest June 18 and 19 to collect infested logs containing brood material of the western pine beetle. This will be used at the Berkeley, Calif., laboratory in a study of the nutritional requirements of this bark beetle.

R. W. Caird, who has been doing some work in connection with the Pack Fellowship at the University of Michigan, reported for duty on June 8, as Field Assistant at Asheville, N. C.

N. D. Wygant and L. E. Peterson reported for duty at Asheville, N. C., on June 16 to assist in studies of the southern pine beetle. Mr. Wygant expects to obtain his B. S. degree next year at Purdue University. Mr. Peterson has just received his B. S. degree from the University of Minnesota.

On June 2 a meeting of the Appalachian Forest Research Council was held at the Battery Park Hotel, Asheville, N. C. R. A. St. George, of the Bureau of Entomology, discussed the work being done on the southern pine beetle at the Bent Creek laboratory.

On June 3, 4, and 5 a meeting of the American Forestry Association was held at Grove Park Inn, Asheville, N. C. As a part of the exhibit of the Appalachian Forest Experiment Station, a set-up was prepared showing various phases of the entomological work.

In the vicinity of Asheville, N. C., there seems to be a scarcity of the southern pine beetle following the heavy attacks of last summer and fall. Natural control of this beetle was believed to have been brought about largely through the premature emergence of beetles last fall resulting from unusually warm weather. Because of unfavorable conditions the broods did not overwinter very successfully. Birds also destroyed large numbers of the developing broods during the fall and winter months.

C. E. Hood, of the gipsy moth laboratory, conducted spray experiments during June for the control of the saddled prominent, Heterocampa guttivitta Walk., and the elm leaf beetle, Galerucella luteola Mull. The caterpillars of the former species at intervals defoliate woodland areas where beech and sugar maple predominate in New England. The control experiments against the elm leaf beetle are intended to ascertain whether a single early spraying with lead arsenate, to which fish oil has been added as an adhesive, will protect the foliage throughout the season.

J. V. Schaffner, jr., of the gipsy moth laboratory, spent June 15 to 18 in Maine where, in company with H. B. Peirson, State Entomologist of that State, he made observations in areas in Cumberland, Sagadahoc, Lincoln, and Knox Counties where there are infestations of a spruce leaf-

miner, Epinotia nanana Tr. They were accompanied by C. W. Collins, in charge of the gipsy moth laboratory, during part of their trip. The observations made indicate that the infestations are much lighter than in 1930, though feeding on both red and white spruce is noticeable, especially near the seacoast. Areas of spruce growth, each covering an acre or more, were examined and none were found to have an average defoliation of more than 35 per cent. The reason for the infestations being lighter than in 1930 is unknown, but it is possibly partly due to the unusually rainy spring of 1931.

During June a number of shipments of parasites were received at the gipsy moth laboratory from the Budapest, Hungary, substation. These consisted of parasites of the European pine shoot moth, Rhyacionia buoliana Schiff., secured in Austria; parasites of the gipsy moth from Austria and Hungary; and parasites of the brown-tail and satin moths from Hungary. A small colony of adults belonging to the genus Tranosema was put out at North Conway, N. H., on June 16. This hymenopterous parasite of Phyllostoma nemorata Fall., a leaf-mining sawfly on birch, was received from Austria during the past winter.

Two small shipments of adults of Mesoleius tenthredinis Morley were received at the gipsy moth laboratory in June from A. B. Baird, of the Dominion Parasite Laboratory, Belleville, Ontario, Canada. This hymenopterous parasite of the larch sawfly, Lygaeonematus erichsonii Hartig, has been introduced from Europe and established in Canada. The adults received at the gipsy moth laboratory have been liberated in larch sawfly infestations in Massachusetts. A shipment of puparia of the tachinid fly Compsilura concinnata Meig. has been sent to the Dominion Parasite Laboratory from Melrose Highlands. Adults issuing from these puparia will be liberated at points in British Columbia where the satin moth is present.

The following men who are either students at or graduates of the institutions mentioned were given temporary appointments as Field Assistants and reported for work at the gipsy moth laboratory on the date given: John Deal, University of Kansas, June 1; Henry Bess, University of Florida, June 5; J. T. Bigham, Ohio State University, June 8; T. O. Fitzgerald, University of Tennessee, June 12; and G. W. Oliver and C. W. Manty, Massachusetts State College, June 18. C. L. Bickel of Harvard University was also given an appointment as Field Assistant, effective on June 1.

R. L. Wallis, Junior Entomologist, was transferred on July 1 from the gipsy moth laboratory to the Bureau's bean-insect laboratory at Estancia, N. Mex.

Visitors to the gipsy moth laboratory in June included the following: C. H. Hadley and J. L. King, of the Japanese beetle laboratory, Moorestown, N. J., June 6; F. C. Bishopp and H. O. Schraeder of the Bureau of Entomology, June 19; G. F. Allen, of the Bureau of the Budget, W. A. Jump, of the Department of Agriculture, and S. A. Rohwer, of the Bureau of Entomology, June 27.



## INSECTS AFFECTING MAN AND ANIMALS

F. C. Bishopp, in Charge.

Dr. William Robinson, who comes direct from the research staff of the Medical School of the University of Chicago, was appointed Senior Entomologist June 1, for duty in Washington. He has been placed in charge of the investigation of flies in relation to osteomyelitis. Dr. Robinson took his undergraduate work at the University of Toronto, his M. S. from the University of Kansas, and his Ph.D. from the University of Minnesota. He has given special attention to ecology, insect physiology, and entomological biochemistry. His work at the University of Chicago Medical School was upon certain phases of surgical shock of humans. This gave him excellent medical and surgical contacts which will be useful in the osteomyelitis project.

Dr. W. E. Dove spent the period June 8 to 12 in Philadelphia, Pa., where he, in cooperation with Dr. Bedford Shelmire of Baylor University, presented an exhibit before the American Medical Association on experimental transmission of endemic typhus through bites of tropical rat mites. For this exhibit Drs. Dove and Shelmire received the Silver Award of the Medical Association. Dr. Dove stopped in Washington before returning to his field station at Charleston, S. C., for the purpose of consulting with F. C. Bishopp and other Bureau officials.

During the same period and before the same association, Dr. G. F. White and Paul A. Woke presented an exhibit on methods of rearing fly larvae for use in the treatment of osteomyelitis.

D. G. Hall of the Charleston, S. C., field laboratory, spent the period June 8 to 12 in Washington, studying the collections in the National Museum.

Herman O. Schroeder, who has been studying ticks in South Carolina and Florida, spent the period June 8 to 27 in Washington studying the tick collection of this division. June 17 to 20 was occupied in making a trip to Martha's Vineyard, Mass., in company with Mr. Bishopp, for the purpose of investigating the tick situation there.

E. W. Laake returned to his regular duties at Dallas, Tex., on June 20, after doing graduate work for several months at Iowa State College, Ames, Iowa.

Edward F. Knipling, who was appointed to assist in investigations on the biology of the screw worm and its control, at Dallas, Tex., reported for duty on June 22. Mr. Knipling is a graduate of Texas A. & M. College, and for the past year has been taking postgraduate work at Ames, Iowa.

## TRUCK-CROP INSECTS

W. H. White, Entomologist

Dr. C. L. Marlatt visited the Alhambra, Calif., field laboratory on June 18 and conferred with the workers there on the progress of work on their projects.

The following employees of this division attended the meetings of the Pacific Slope Branch of the American Association of Economic Entomologists at Pasadena, Calif., June 17 to 19, inclusive: R. E. Campbell, M. W. Stone, and J. C. Elmore, of Alhambra, Calif.; W. C. Cook and F. R. Lawson, of Davis, Calif.; H. C. Wallace and G. T. York, of Riverside, Calif.; O. H. Lovell, of San Jose, Calif.; and R. Cecil, of Ventura, Calif.

On June 1 the pepper weevil laboratory located at Santa Ana., Calif., was combined with the Alhambra, Calif., field laboratory, which has been moved from 200 S. 3d St., to 1208 E. Main St.

O. H. Lovell, of San Jose, Calif., conferred with R. E. Campbell, Entomologist in charge of the soil-insects laboratory at Alhambra, Calif., on June 19, relative to control work on the vegetable weevil during the aestivation period.

Among the visitors to the Alhambra, Calif., field laboratory during June were: D. B. Mackie, of the California State Department of Agriculture; Dr. R. N. Chapman and Carl Schmidt of the University of Hawaii; Dr. Don C. Mote and H. A. Scullen of the Oregon Agricultural College; and S. F. Bailey of the University of California.

C. G. Woodbury, Director of Raw Products Research, National Canners Association, Washington, D. C., paid a short visit to the Madison, Wis., field laboratory on June 18.

T. E. Bronson, of the Madison, Wis., laboratory, has just completed new rain and wind recorders. These are an improvement over the machines developed last year, as they record wind direction as well as velocity. Instead of the charts which had to be changed daily, a 90-foot roll of chart is to be used this year which will run for about two months. A section will be removed weekly, however, to prevent it from winding too much on the drum and altering the time.

W. A. Thomas, of Chadbourn, N. C., visited the Sanford, Fla., and Fairfax, S. C., field laboratories the middle of June in connection with investigations of the mole cricket.



A. C. Davis, formerly connected with the University of California, and who has been working on the pepper weevil in cooperation with the Santa Ana laboratory, has been given a probational appointment as Assistant Entomologist at the Arlington Experiment Farm, Rosslyn, Va. He will conduct studies on mushroom pests. He succeeds O. E. Gahm, who resigned last fall.

C. H. Clifton has been appointed Agent at Berkeley, Calif., and assigned to investigations of the sugar beet leafhopper.

Dr. D. E. Fink, Entomologist, of the Philadelphia, Pa., field laboratory, has been transferred to Takoma Park, Md., effective June 30. The Philadelphia laboratory has been discontinued.

The following have been appointed as Field Assistants and assigned to duty as indicated:

J. F. Roe, R. K. Howe, and F. E. Carroll at Madison, Wis.  
P. M. Eide and A. E. Bonn at Puyallup, Wash.  
G. Zelesnick at Philadelphia, Pa.  
L. L. Odom at Grand Bay, Ala.  
H. C. Eagerton at Fairfax, S. C.  
C. T. McCoy, H. F. Cline, and J. A. Gillett at Twin Falls, Idaho.  
H. Donohoe at Davis, Calif.  
M. F. Bowen at Salt Lake City, Utah.  
C. Harbison at Hermiston, Oreg.  
J. R. Weedon at Norfolk, Va.  
J. G. Shaw and E. B. Wiggins at Estancia, N. Mex.  
D. M. DeLong and J. Apple at Columbus, Ohio.

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#### TROPICAL, SUBTROPICAL, AND ORNAMENTAL PLANT INSECTS

A. C. Baker, in Charge.

Dr. Floyd F. Smith was transferred from the Division of Cereal and Forage Insects to this division on June 8 and appointed as entomologist, for duty at the Tropical Greenhouse in Washington, D. C. He will make a study of the cyclamen mite and other greenhouse insects.

Robert H. Nelson was appointed Junior Entomologist, June 15, to be stationed at Sumner, Wash.

Foster H. Benjamin was transferred from the Plant Quarantine and Control Administration to this division on June 1, for the purpose of completing certain studies on the Mediterranean fruit fly.



The following Field Assistants were appointed in June: Don B. Creager, for duty at Babylon, N. Y.; George E. Burch and Arthur J. Haas, jr., for duty at New Orleans, La.; and T. R. Hansberry, for duty at Sumner, Wash.

Dr. H. H. Darby, Mrs. Darby, and Dr. E. W. Emmart, of the Mexican fruit worm laboratory at Mexico City, resigned effective June 30.

C. P. Clausen, who left Washington last November for the Far East to continue his search for parasites of the citrus black fly, arrived in Havana, Cuba, on June 3 with a shipment of parasites, which will be liberated there. On May 31 Mr. Clausen inspected the infestations in Panama, where colonies of one of the parasites, Eretmocerus serius Silv., had been liberated in January, and reports that whereas at the time of liberation the trees were heavily infested, now citrus is almost entirely free from the black fly. Additional parasitic material will be sent to Panama from Cuba. Mr. Clausen has been engaged in collecting these parasites in the Far East since the spring of 1929.

Dr. F. S. Bodenheimer, authority on citrus insects in Palestine, visited the Lindsay, Calif., office of the Bureau June 30. Dr. Bodenheimer desired to discuss with E. A. McGregor the latest developments in the control of insects with finely divided sulphur dusts. He was accompanied to Lindsay by R. S. Woglum, Entomologist for the California Fruit Growers Exchange.

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## LIBRARY

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## NEW BOOKS

Association of Hawaiian Pineapple Cannery. Experiment station.

Pineapple quarterly, v. 1, no. 1, April 1931. Honolulu, 1931-Beale, Reginald.

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Blatchleyana, a list of the published writings of W. S. Blatchley . . . together with a chronology of his life: the fixation of types of new genera and species described by him . . . 77 p. 2 parts (incl. front.) Indianapolis, The Nature Publishing Co., 1930.

Bracci, F.

Le piante oleifere con particolare considerazione all'Olivio . . . Parte I. 129 p., illus., Pisa, Tipografia editrice Pacini Marzotti, 1930. [Parasiti animali, p. 109-120.]



Brongniart, Charles.

. . . Recherches pour servir à l'histoire des insectes fossiles des temps primaires, précédées d'une étude sur la nervation des ailes des insectes (accompagnées d'un atlas de 37 planches in folio) 2 v. Saint-Etienne, Imprimerie Theolier et Cie, 1894.

Catalogue of Indian insects. Part 18 - Carabidae, By H. E. Andrews. 389 p. Calcutta, Govt. of India, Central pub. branch, 1930.

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Imperial Agricultural Bureau - Executive Council.

List of agricultural research workers in the British Empire, 1930. 212 p. London, Published by His Majesty's Stationery Office, 1931. [Entomology: p. 135-146.]

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Las abejas - curso de apiculture o zootecnia apicola . . . Ed. 1, 224 [6] p., illus.. Santander, 1929.

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Report on the operations for the control of *Phytalus smithi* (Arrow) during the season 1929-30. 7 p. [Signed: A. Delord, Chief Phytalus officier.]

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A guide to the study of fresh-water biology, with special reference to aquatic insects and other invertebrate animals. 88 p., illus. Springfield, Ill., Baltimore, Md., C. C. Thomas, 1930. [An extension of an earlier booklet, Genera of plancton organisms of the Cayuga Lake basin, by O. A. Johansen and J. T. Lloyd, published in 1915.]

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